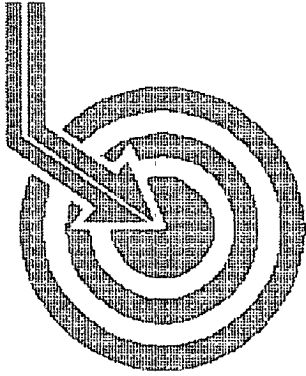




Scientific Drilling

RECEIVED
JUL 21 2006
OCCUPANTEDIA

MACK ENERGY

Field: Grayburg Jackson
Site: Eddy County, NM
Well: McIntyre DK Fed #14
Wellpath: DH - Job #32D0506429
Survey: 50/29/06-06/05/06

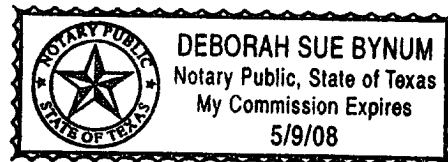
This survey is correct to the best of my knowledge
and is supported by actual field data.

Sharon.....Company Representative

Notorized this date 10th of July, 2006.

Deborah Sue Bynum

Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International Survey Report

Company: MACK ENERGY	Date: 07/10/2006	Time: 15:44:35	Page: 1
Field: Grayburg Jackson	Co-ordinate(NE) Reference:	Site: Eddy County, NM, True North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: McIntyre DK Fed #14	Section (VS) Reference:	Well (0.00N,0.00E,180.00Azi)	
Wellpath: VH - Job #32K0506430	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 05/29/06	Start Date:	05/29/2006
KSRG 0'-1048'		
Company: Scientific Drilling Internatio	Engineer:	Gonzales w/Signal
Tool: Keeper;Keeper Gyro	Tied-to:	From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	359.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.41	101.45	100.00	0.07	-0.07	0.35	0.41	0.36	101.45
200.00	0.12	92.56	200.00	0.15	-0.15	0.81	0.29	0.82	100.32
300.00	0.61	305.72	300.00	-0.16	0.16	0.48	0.71	0.50	71.57
400.00	1.40	313.25	399.98	-1.31	1.31	-0.84	0.80	1.56	327.16
500.00	1.49	308.74	499.95	-2.96	2.96	-2.75	0.14	4.04	317.11
600.00	1.11	310.57	599.92	-4.40	4.40	-4.50	0.38	6.29	314.38
700.00	1.31	308.28	699.90	-5.74	5.74	-6.13	0.21	8.40	313.11
800.00	1.11	333.08	799.88	-7.31	7.31	-7.47	0.58	10.45	314.40
900.00	1.39	358.31	899.86	-9.39	9.39	-7.94	0.61	12.30	319.77
1000.00	1.41	13.18	999.83	-11.80	11.80	-7.70	0.36	14.09	326.88
1048.00	1.59	14.83	1047.81	-13.02	13.02	-7.39	0.39	14.97	330.41



Scientific Drilling International Survey Report

Company: MACK ENERGY	Date: 07/10/2006	Time: 16:42:12	Page: 1
Field: Grayburg Jackson	Co-ordinate(NE) Reference:	Site: Eddy County, NM, True North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: McIntyre DK Fed #14	Section (VS) Reference:	Well (0.00N,0.00E,180.00Azi)	
Wellpath: DH - Job #32D0506429	Survey Calculation Method: Minimum Curvature	Db: Sybase	

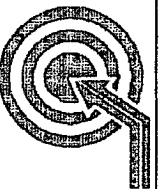
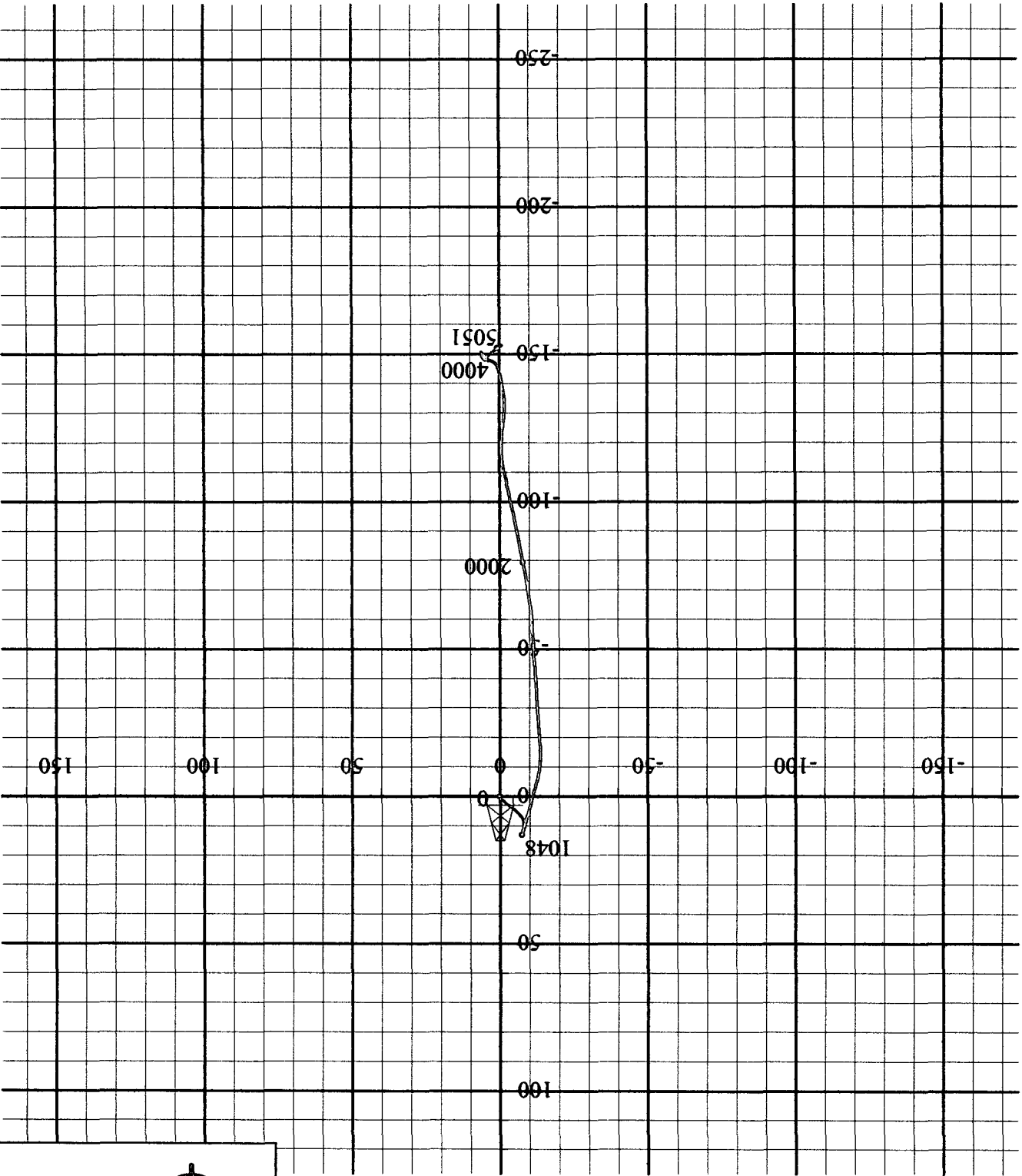
Survey: 50/29/06-06/05/06 MWD 1142'-5060'	Start Date: 05/29/2006
Company: Scientific Drilling Internatio	Engineer: Johns/Ledbetter
Tool: MWD;MWD	Tied-to: From: Definitive Path

Survey

MD ft	Incl deg	Azlm deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
1048.00	1.59	14.83	1047.81	-13.02	13.02	-7.39	0.00	14.97	330.41
1142.00	1.65	197.60	1141.80	-12.99	12.99	-7.47	3.45	14.98	330.11
1235.00	4.43	196.19	1234.66	-8.26	8.26	-8.87	2.99	12.12	312.95
1298.00	5.81	196.13	1297.40	-2.86	2.86	-10.44	2.19	10.82	285.33
1360.00	6.58	196.00	1359.04	3.57	-3.57	-12.29	1.24	12.80	253.81
1486.00	7.33	174.85	1484.13	18.52	-18.52	-13.56	2.10	22.95	216.21
1580.00	6.95	176.86	1577.40	30.17	-30.17	-12.71	0.48	32.73	202.84
1673.00	6.47	175.91	1669.77	41.01	-41.01	-12.02	0.53	42.74	196.34
1830.00	5.91	177.93	1825.85	57.91	-57.91	-11.10	0.38	58.97	190.85
1891.00	7.05	171.88	1886.46	64.76	-64.76	-10.46	2.18	65.60	189.18
1954.00	7.68	169.82	1948.94	72.73	-72.73	-9.17	1.08	73.30	187.19
2049.00	7.03	168.70	2043.16	84.68	-84.68	-6.91	0.70	84.96	184.66
2174.00	6.72	168.15	2167.26	99.34	-99.34	-3.91	0.25	99.41	182.25
2269.00	6.08	167.74	2261.67	109.69	-109.69	-1.70	0.68	109.71	180.89
2362.00	6.06	181.77	2354.15	119.41	-119.41	-0.80	1.59	119.42	180.39
2425.00	5.79	186.87	2416.82	125.89	-125.89	-1.29	0.94	125.90	180.59
2455.00	5.33	184.60	2446.67	128.78	-128.78	-1.58	1.70	128.79	180.70
2517.00	4.30	178.84	2508.46	133.98	-133.98	-1.76	1.83	133.99	180.75
2548.00	3.85	168.65	2539.38	136.16	-136.16	-1.54	2.74	136.17	180.65
2612.00	2.52	173.44	2603.28	139.66	-139.66	-0.95	2.12	139.67	180.39
2673.00	2.02	167.55	2664.23	142.05	-142.05	-0.57	0.90	142.05	180.23
2766.00	2.09	157.62	2757.17	145.21	-145.21	0.43	0.39	145.22	179.83
2829.00	1.84	131.09	2820.13	146.94	-146.94	1.63	1.48	146.95	179.36
2892.00	1.04	93.18	2883.11	147.64	-147.64	2.97	1.91	147.67	178.85
3079.00	0.34	113.61	3070.10	147.95	-147.95	5.17	0.39	148.04	178.00
3205.00	0.92	164.82	3196.09	149.08	-149.08	5.78	0.60	149.19	177.78
3331.00	0.39	172.27	3322.08	150.48	-150.48	6.10	0.43	150.61	177.68
3456.00	0.59	328.93	3447.08	150.35	-150.35	5.82	0.77	150.46	177.78
3549.00	0.53	315.73	3540.08	149.63	-149.63	5.28	0.15	149.73	177.98
3688.00	0.08	136.70	3679.08	149.24	-149.24	4.89	0.44	149.32	178.12
3814.00	0.32	326.40	3805.08	149.01	-149.01	4.76	0.32	149.09	178.17
3940.00	0.17	349.08	3931.07	148.54	-148.54	4.53	0.14	148.61	178.25
4065.00	0.55	218.63	4056.07	148.82	-148.82	4.12	0.54	148.88	178.41
4189.00	0.38	248.01	4180.07	149.44	-149.44	3.37	0.23	149.48	178.71
4315.00	0.88	220.84	4306.06	150.33	-150.33	2.35	0.45	150.35	179.11
4443.00	0.33	253.80	4434.05	151.18	-151.18	1.35	0.49	151.18	179.49
4630.00	1.08	230.56	4621.04	152.45	-152.45	-0.53	0.42	152.45	180.20
4693.00	0.10	55.95	4684.04	152.80	-152.80	-0.94	1.87	152.80	180.35
4819.00	0.60	54.60	4810.03	152.35	-152.35	-0.31	0.40	152.35	180.12
4881.00	0.28	0.81	4872.03	152.01	-152.01	-0.05	0.79	152.01	180.02
5007.00	0.34	113.17	4998.03	151.85	-151.85	0.30	0.41	151.85	179.89
5060.00	0.43	116.24	5051.03	152.00	-152.00	0.63	0.17	152.00	179.76

South(-)/North(+) [20ft/in]

West(-)/East(+) [20ft/in]



Scientific
Drilling

Field: Grayburg Jackson
Site: Eddy County, NM
Well: McIntyre DK Fed #14
Wellpath: DH - Job #32D0506429
Survey: 50/29/06-06/05/06



Azimuths to True North: 0.00°
Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 07/10/2006
Model: WMM_95